

Notice of Allowability

Application No.

10/777,117

Examiner

Michael Trinh

Applicant(s)

MONOE ET AL.

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE and IDS filed June 16, 2006.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

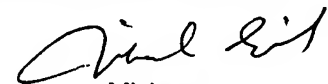
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 6/16/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.



Michael Trinh
Primary Examiner

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DETAILED ACTION

*** This office action is in response to Applicants' RCE request and IDS filed June 16, 2006. Claims 1-20 are pending.

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

AMENDMENT TO THE ABSTRACT : (Just for minor correction of a two-paragraphs abstract into a single paragraph abstract)

Please replace the Abstract with the following amended abstract:

ABSTRACT OF THE DISCLOSURE

It is an object of the present invention to enhance a selection ratio in an etching process, and provide a method for manufacturing a semiconductor device that has favorable uniform characteristic with high yield. In a method for manufacturing a semiconductor device according to the present invention, a semiconductor layer is formed, a gate insulating film is formed on the semiconductor film, a first conductive layer is formed on the gate insulating film, a second conductive layer is formed on the first conductive layer, the first conductive layer and the second conductive layer are etched to form a first conductive-layer pattern, the second conductive layer in the first conductive-layer pattern is selectively etched with plasma of boron trichloride, chlorine, and oxygen to form a second conductive-layer pattern, and a first impurity region and a second impurity region are formed in the semiconductor layer.

Allowable Subject Matter

2. Claims 1-20 are allowed for reasons as of record and repeated herein.

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3. The following is a statement of reasons for the indication of allowable subject matter:

The references of record, alone or in combination, do not fairly anticipatively disclose each and every aspect of the method for manufacturing a semiconductor device, or fairly make a prima facie obvious case of the claimed method, in combination with other processing claimed limitations as recited in base claims, among other things, the inclusion of forming a second conductive layer on the first conductive layer formed over the gate insulating film formed on the semiconductor film; etching the first conductive layer and the second conductive layer to form a first conductive-layer pattern; selectively etching the second conductive layer in the first conductive-layer pattern with plasma of boron trichloride, chlorine, and oxygen to form a second conductive-layer pattern; and forming a first impurity region and a second impurity region in the semiconductor layer, as recited in base claims 1-2, or doping the semiconductor layer with an impurity element through the first conductive layer in the second conductive layer pattern to form an LDD region, as recited in base claims 13-14.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Trinh whose telephone number is (571) 272-1847. The examiner can normally be reached on M-F, 9:00 Am to 5:30 Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra Smith can be reached on (571) 272-2429. The central fax phone number is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Oacs-17



Michael Trinh
Primary Examiner